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COERCIVE AIRPOWER IN THE TWENTY FIRST CENTURY

by

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The classical airpower theorists promoted air forces as a revolutionary new combat arm capable of destroying the moral resistance of the enemy. Speaking about the effects of aerial bombardment, Giulio Douhet said, “A complete breakdown of the social structure cannot but take place in a country subjected to this kind of merciless pounding from the air. The time would soon come when, driven by the instinct of self-preservation, would rise up and demand an end to the war.”¹ Douhet and others focused on crushing the enemy’s will to fight through direct attack on civilian populations. These early theorists developed their ideas in the aftermath of WWI, when operations were not constrained over fears of collateral damage or force protection. Leading up to WWII, American airpower theorists expanded strategic air attack to include destroying the opponent’s material war making capacity. During WWII and the Cold War, airpower’s primary mission was touted as strategic bombing with two intertwined targets: military-economic capacity and civilian populations.

While the classical airpower theorists developed their ideas in the age of total war, the probability and acceptability of total war in the post Cold War period is now remote. The Western interpretation of Just War Theory frowns upon direct civilian attack. Some say that the age of industrial war is behind us, negating the effects of destroying the military industrial complex. So where does that leave air and space power? Is air and space strategic attack still useable? For non-nuclear options, two strategic applications of air and space power remain: coercion and strategic paralysis. Neither of these strategies is entirely new. B.H. Liddel-Hart’s post WWI strategic paralysis theory was the forerunner to John Warden’s air power theory of paralysis/decapitation. Coercion is an evolution of the classical airpower theorists’ ideas of destroying the enemy’s will to resist. Therefore, coercion is almost all that is left of the classical theory of airpower.

¹ Douhet, *Command of the Air*, 58.

Unfortunately, convincing an enemy to comply with one's demands is difficult. In some cases it may be impossible short of complete defeat. So, can air and space power coerce an opponent? The answer is "it depends." This paper investigates the future of coercive air and space power. Specifically, it focuses on conventional compellence. The first section reviews historical and current theories of coercion and develops a list of criteria for when coercion may be successful. The second section evaluates these criteria against three historical USAF examples: Vietnam, the Balkans, and Afghanistan. Finally, this paper addresses the future application of coercive air and space power in the Global War on Terrorism and nuclear proliferation in Iran.

COERCION THEORY

Coercion is a broad term with no single definition. In *Arms and Influence*, Thomas Schelling describes coercion as "the *threat* of damage, or of more damage to come, that can make someone yield or comply."² His definition includes both deterrence and compellence. He defines deterrence as the effort to maintain a status quo by convincing an opponent to not take a particular course of action, and compellence as the effort to change an opponent's behavior or force the opponent to discontinue an action.³ In this definition, deterrence is the defensive form of coercion with compellence the offensive form. More recently, coercion has often been limited to only compellence. For example, Robert Pape defines coercion as persuading an opponent to stop or change an action based on its calculation of costs and benefits.⁴ The difference between compellence and deterrence is mostly academic, for in practice the two strategies often overlap. This paper will focus on the air and space power contribution to compellence, the application of

² Schelling, *Arms and Influence*, 3.

³ Ibid., 69-72.

⁴ Pape, *Bombing to Win*, 12-13.

conventional force, or the threat of force, with the intent of changing an opponent's course of action to a course of action we desire.

Obviously, changing an opponent's course of action is the goal of most armed confrontation. Ultimately, states fight wars to force a change in the policies or behaviors of other nations or organizations. Brute force, or a strategy of unconditional surrender, seeks to remove an opponent's capability to do anything other than the attacker's demands.⁵ But coercion seeks to change an opponent's behavior while it still has the means to resist. Although successful military coercion requires the *threat* of significant violence, it seeks to end hostility with a minimum amount of *applied* violence. Therefore coercion is an attractive strategy to nations seeking victory with minimum violence and casualties.

To achieve victory through coercion, strategists must analyze and understand the opponent's decision calculus. According to Robert Pape, the opponent will decide whether to resist or comply with demands based on their interpretation of expected costs and benefits, and the probabilities of success and failure. If the opponent estimates the value of compliance exceeds the value of resistance, then coercion should succeed. Pape and Johnson provide mathematical models of this logic, but the point to take away from such analysis is that successful coercion ultimately depends on the opponent.⁶ Therefore, strategists must see the conflict through their opponent's eyes.

There are six general methods of coercion developed in the current literature: punishment, risk, denial, decapitation, magnification of third party threats, and accommodation. Nations can use these strategies individually, serially, or simultaneously.⁷ None are a one-size

⁵ Johnson, Mueller, and Taft, *Conventional Coercion*, 8-9.

⁶ Pape, *Bombing to Win*, 16 and Johnson, Mueller, and Taft, *Conventional Coercion*, 15.

⁷ For an example of a hybrid strategy see Hinman, "Politics of Coercion," 31-43.

fits all strategy. There are benefits and limitations of each, and leaders must select a course of action based on judgment and the particular situation.

Punishment based coercion seeks to raise the cost of resistance to an unacceptable level. Punishment employs violence directly through civilian attack, or indirectly through economic degradation.⁸ It is not focused at the opponent's ability to resist but at its will to resist.⁹ In this regard, coercion through punishment is the descendant of Giulio Douhet's classical airpower theory. Douhet predicted future war to be "a very violent struggle, terrifying in its nature, waged in order to strike at the moral resistance of the foe."¹⁰ Other inter-war airpower theorists such as Mitchell and the Air Corp Tactical School also recommended attacks against civilian targets to collapse the enemy's will. They predicted this collapse of will would result in surrender before the defeat of fielded armies. Coercion punishment differs from Douhet and the others in that it emphasizes the threat of future punishment as the mechanism of capitulation instead of the physical punishment.

Risk coercion is similar to punishment, but instead of threatening attack with maximum effort, applied force is gradually increased over time to incrementally increase the cost of resistance. Thomas Schelling contributed extensively to the development of risk based coercion. He theorized that "coercion depends more on the threat of what is to come than on damage already done."¹¹ Most state governments have a bureaucratic process that takes time to make decisions and policy changes. Because successful coercion requires such a change from the opponent, Schelling argued that a coercion campaign must be waged in increments to provide the

⁸ Pape, *Bombing to Win*, 18.

⁹ Johnson, Mueller, and Taft, *Conventional Coercion*, 16.

¹⁰ Douhet, *Command of the Air*, 203.

¹¹ Schelling, *Arms and Influence*, 172.

diplomatic process time to succeed while still holding the capacity for more violence in reserve.¹²

There are two variances in the theory of risk coercion. Schelling and Pape propose increasing the cost of resistance by attacking primarily civilian targets. However, Byman and others use the term “escalation dominance” and include the option to increase costs through stronger attacks on military as well as civilian targets.¹³ Therefore the risk method of coercion includes any threat to gradually increase attacks on something that the opponent values, thereby increasing the cost associated with resistance to a high enough level to induce capitulation.

While punishment and risk attempt to increase the cost of resistance, denial seeks to decrease the probability of the opponent’s success. David Johnson comments that denial targets the enemy’s capability to achieve its objective or resist the coercer’s demands. Most frequently this involves threatening the target state’s military capability.¹⁴ To be successful, the coercer must convince the opponent that its strategy is doomed to fail if the coercer applies force. The critical pieces of denial are accurately identifying the opponent’s planned strategy, and convincing the opponent that you have the capability and will to defeat that strategy. If the opponent believes its strategy is likely to fail, then it may succumb to the coercive effort.

Coercive decapitation seeks capitulation by threatening attacks on political or military leadership. According to Robert Pape, political decapitation threatens leaders who are the “driving force” behind the hostile policies.¹⁵ Political decapitation has primarily a punishment effect, forcing leaders to comply with demands out of fear for their lives. Alternatively, decapitation may have a denial effect by threatening military leadership. If military forces are a

¹² Ibid, 172-173.

¹³ Byman, Waxman, and Larson, *Air Power as a Coercive Instrument*, 30-36.

¹⁴ Johnson, Mueller, and Taft, *Conventional Coercion*, 16-17.

¹⁵ Pape, *Bombing to Win*, 80.

critical component of an adversary's strategy, then military leaders and command and control networks may be desirable targets. Cut off from higher headquarters, units in the field will be less effective and more easily defeated.¹⁶ Faced with a low probability of military success, political leadership may submit to the coercer's demands.

Magnification of third party threats involves threatening action that would tilt the balance of power in favor of a hostile internal or external group. This can be accomplished in several ways. Focusing on military capabilities, David Byman proposes that a coercer can threaten to degrade the target state's military forces to a point that they are vulnerable to a hostile neighbor or an internal insurgency.¹⁷ This essentially increases the expected cost of resistance by jeopardizing the current regime's stability. Providing economic aid, training, or equipment to a hostile party can also change the balance of power without the coercer risking its own military force.¹⁸

Finally, accommodation is a non-military method of coercion that can compliment other coercive efforts. While most coercive strategies leverage the threat of future pain, accommodation offers incentives for yielding to demands.¹⁹ The incentives can be anything the target state values. Unfortunately, accommodation can provide the target state time and resources to actually increase their capacity to resist in the future. When used in coordination with punitive threats, it does provide adversary leadership with an opportunity to comply with demands while saving face. It may reduce the domestic political costs of compliance and increase the probability of success for the overall strategic objective of coercion. Alexander George, a big proponent of using accommodation in coercion, contends it gives the coercer more

¹⁶ Ibid.

¹⁷ Byman, Waxman, and Larson, *Air Power as a Coercive Instrument*, 135.

¹⁸ Ibid.

¹⁹ Johnson, Mueller, and Taft, *Conventional Coercion*, 16.

bargaining power in the diplomatic process and the threat of force does not need to be as formidable to still be successful.²⁰

All six of these courses of action are coercive only if they are supported by effective diplomatic dialogue. The coercer must make it clear to the target state that its current actions are undesirable. Then the coercer must threaten some combination of military, diplomatic, and/or economic force if the target state does not alter its present course of action. Finally, the coercer must clearly communicate what is required of the target to prevent or halt the threatened force. In short, the application of coercive military power is only effective if it is part of a broader strategy of coercive diplomacy.

WHEN COERCION IS LIKELY TO SUCCEED

Before an air commander should employ coercive air and space power, strategic planners must determine if a coercive strategy is likely to succeed. Unfortunately, history shows that coercion often fails and predicting its success is difficult. Important factors for successful coercion include knowing the adversary's political system well, possessing high credibility in the opponent's eyes, and pursuing an objective that is not completely opposed with the enemy's objective. The coercer must also analyze the opponent's relative capabilities and will to resist.

Because successful coercion is contingent on the adversary's decision to comply with demands, understanding the political decision making system is critical. One must know who will actually make the decision to resist or comply and what groups or individuals can influence that decision. If the coercer knows how the opponent makes decisions, he can better determine where and how to apply pressure and also better predict if coercion will succeed. The coercer must also know what the decision makers truly value. Similar to a center of gravity in a

²⁰ George, *Forceful Persuasion*, 11.

traditional military campaign, a coercer should aim his threats at things that the opposing government truly values to drive the cost of resistance up.

To better influence an adversary government, John Pray proposes exploiting “windows of coercive opportunity.”²¹ He recommends that governments should not be modeled as a solitary rational actor, but as a complex system of competing organizations. One lucrative window of opportunity exists if there is a split in consensus of support for the concerned course of action.²² If a split in consensus exists, coercive threats or strikes may be used to increase the political standing of the compliant faction. If the domestic balance of power shifts enough, then the opponent will comply.

The coercer must also know if the target government is even capable of complying with demands. Some governments are too weak to exert control over parts of their population or territory.²³ In certain areas of the Horn of Africa, the tri-boarder region in South America, and the Pakistan-Afghanistan boarder, local national governments do not have the power to adequately enforce policy. Coercing a nation to enforce policy in areas such as these may not even be possible.

The second condition that should be present to successfully employ coercion is credibility. Credibility includes how the target state estimates our capabilities and resolve. The opponent must believe the coercer possesses the military capabilities to actually inflict the threatened violence.²⁴ In other words, he must believe there is a high probability that the coercer can destroy something he values. Not only must the capability exist, the target state must believe

²¹ Pray, “Coercive Air Strategy,” 30.

²² Ibid.

²³ Byman, Waxman, and Larson, *Airpower as a Coercive Instrument*, xv.

²⁴ Ibid., 50.

the coercer has the political will to actually carry out the threat.²⁵ This can be problematic for Western democracies. Modern Western democracies generally disapprove of collateral damage and high friendly casualties. If the adversary leadership doubts the coercer has adequate domestic support for the required military action then they will likely continue to resist.

Finally, the goals of each side cannot be so opposed that coercion would be likely to fail. As Schelling says, “Coercion requires finding a bargain, arranging for him to be better off doing what we want—worse off not doing what we want.”²⁶ For instance, if the coercer demands a change in government, the target will be unlikely to concede because it is too high of a cost. Pray recommends that coercion only be attempted to seek a policy change, not a government change.²⁷ The lower the priority of the desired policy change in the target state’s eyes, the more likely coercion will succeed. Alexander George proposes a similar concept he calls “asymmetry of motivation.”²⁸ In the target’s estimation, if the coercer is more highly motivated than the target, then coercion is more likely to succeed. The easiest measure of motivation is how closely related the disputed policy is to an actor’s vital interest. Whoever holds a higher vital interest has more motivation, and the coercive advantage tilts towards that side.

Analysis of the above conditions allows a coercer to make a reasonable judgment about whether or not coercion is likely to work in a given situation. But the level of effort and magnitude of threat required for successful coercion is a function of the opponent’s will and capabilities together.²⁹ Analysis of the opponent’s capabilities relative to your own will give a coercer insight into the probability of success if force is required. But the target of coercion is not only concerned with the probability of success and failure. He is also driven by the

²⁵ Johnson, Mueller, and Taft, *Conventional Coercion*, 21.

²⁶ Schelling, *Arms and Influence*, 4.

²⁷ Pray, “Coercive Air Strategy,” 30.

²⁸ George, *Forceful Persuasion*, 77.

²⁹ Johnson, Mueller, and Taft, *Conventional Coercion*, 23-25.

importance of the policy or action at stake. For example, if national survival is at stake, even a weak target may be willing to fight against all odds, and coercion will fail. Therefore, a high capability to resist or an issue of high value to the target will either decrease the chances of successful coercion, or increase the costs the coercer must be willing to spend for success.

SELECTING A METHOD OF COERCION

When the above conditions make coercion a viable option, the coercer must decide what general method, or combination of methods, to pursue. As a starting point, the coercer must determine where to most effectively target his threats. Thomas Schelling recognized that to successfully coerce, “one needs to know what an adversary treasures and what scares him.”³⁰ If the coercer threatens what the adversary values most, then he maximizes the perceived cost of resistance. The things an opponent values most are the biggest determinant in which coercive method to employ. But other variables will influence the final selection as well.

Punishment is probably the least likely coercive method for the United States to pursue in a non-nuclear crisis. Starting with the Vietnam War, the American public became increasingly less tolerant of civilian casualties. During Desert Storm, the U.S. military touted precision weapons as the centerpiece for a new way to wage a clean, casualty-free war. Now, the American public expects the military to do everything within reason to minimize loss of civilian life. It would not be politically feasible for America to pursue a classic policy of punishment coercion. Even if the U.S. did pursue it, the target state would doubt our credibility. Public will is a strategic center of gravity for America, and the target state would gamble that it could suffer through attacks long enough for public will to change U.S. strategy. Because of this weakness, America and most Western democracies will rarely succeed with punishment coercion.

³⁰ Schelling, *Arms and Influence*, 3

Beyond a lack of public support for punishment, its historic record is not impressive. While the impact of the fire bomb raids on the civilian will in Germany and Japan during WWII is still debated, the raids had almost no impact on the resolve of the axis leadership.³¹ It is worthwhile to consider that President Truman did not engage in diplomatic dialogue with Germany or Japan during the fire bombing campaigns. Therefore they are not the best case studies for coercion, but the lack of impact on political will to end the war before total defeat is important to the theory of coercion. Despite all its limitations, punishment may be the only useful coercion strategy when a coercer faces a full industrial war against a near peer competitor.

Because of punishment's poor coercive record, some theorists, including Pape, discredit risk because it is simply a weaker form of punishment.³² However, Operation Allied Force, discussed later, demonstrated the strengths of risk based strategy in certain contexts. The benefit of risk over punishment is that it is more palpable to Western public opinion. The most critical condition for successful risk coercion is the existence of an appropriate objective to threaten. An objective must exist that is important to the target and politically feasible for the coercer to attack. If the threatened objective is more valuable to the target state's leadership or power base than the central issue at stake, then risk coercion may succeed. This will occur most frequently in conflicts over limited objectives on both sides. Risk coercion is especially applicable against affluent and industrialized countries where popular opinion can influence political leadership. By threatening the population's standard of living, risk coercion may turn popular support against the contested policy and influence the target leadership to concede.

While risk is more politically acceptable than punishment, denial is often even more acceptable to U.S. policy makers. Because it usually targets military capabilities, denial coercion

³¹ Pape, *Bombing to Win*, 113, 126, 272.

³² *Ibid.*, 30.

complies with the Western view on morality in war. It can be successful under two broad conditions. If the target state's military is necessary for the implementation of the policy under coercion, then threatening the defeat of the military will hold high coercive power.

Alternatively, if the target group places a high value on its military, then threatening its defeat or degradation may drive the value of compliance above the value of resistance. In either case, the target state must believe that the coercer has a significant military advantage and the will to use it to drive up the probability of failure in their decision calculus.

Unfortunately, denial coercion prior to Desert Storm failed even though it met the first two requirements proposed above. Saddam Hussein believed he could negate any U.S. military advantage through splintering Arab support or inflicting significant American casualties. Iraq's military was necessary to hold Kuwait and it was a source of pride and power for Saddam Hussein. However, Saddam "seemed to be counting on emotional support for Iraq in the Arab and Islamic world."³³ If the confrontation escalated to war, then Saddam felt the Arabs would switch sides and the U.S. led coalition would crumble, especially if he could get Israel involved. And for who had the military advantage, Saddam was confident in his military's abilities because it was battle hardened, was the third largest in the world, and held the defensive advantage. With these conditions, Saddam felt he could inflict enough casualties to destroy U.S. domestic support for the war.³⁴ However, in the wake of recent American military experiences, few nations will doubt our significant symmetric combat advantages in the near future. But Desert Storm highlights the fact that successful coercion is ultimately up to the target leadership, even if conditions seem favorable to successful coercion.

³³ Herrmann, "Coercive Diplomacy," 256.

³⁴ Ibid, 255.

Using decapitation as a method of denial definitely drives up the cost of resistance, but recent history suggests that it is better suited against nation states than non-state actors. To be credible, the coercer must have the capability to actually target and destroy the adversary's leadership. OIF and OEF both show how difficult it is, even for the U.S., to target leadership quickly. America does have the capability to quickly isolate leadership and send them into hiding, but it can take longer to actually stifle their influence. Against Iraq, it took six months to capture Saddam Hussein and effectively end his influence over Iraqi resistance. America and her allies toppled the Taliban a little more quickly in Afghanistan. But it is much harder to decapitate a non-state actor. We still have not captured or killed Osama Bin Laden after over four years of trying. Because Bin Laden is in hiding, his direct control over Al Qaeda is probably less than before, but he still has influence, and his organization is still very strong and active. From these examples, it is plausible that in the near future, state leadership will view a decapitation threat as credible, but non-state actor leadership will not.

Beyond capabilities, the coercer must have the will to carry out a decapitation strategy to make the threat completely credible. A large part of the coercer's will is the estimated risk associated with the aftermath of decapitation. The coercer must analyze who will likely fill the vacated leadership role and what conditions will prevail under that new leadership. Predicting succession is a very difficult task, as Robert Pape points out.³⁵ But more importantly, recent history shows that coercers will likely face substantial costs after a regime change. Afghanistan shows that even with strong local allies, a coercer may have to commit to a long term rebuilding effort to ensure stability. Iraq shows the utter chaos that can follow a decapitation. In most cases, nations should not use decapitation coercion against state actors unless they are willing to

³⁵ Pape, *Bombing to Win*, 81.

accept long term stabilization costs. In any case, the coercer must convince the target state that it is willing to accept the potentially high future costs of decapitation.

Coercers should only attempt to magnify third party threats if the future balance of power is favorable to the coercer's interests. Again, credibility is central to the effectiveness of the coercer's threat, and the likely end state of the carried out threat must be viewed as advantageous to the coercer. Because the coercer is threatening to tilt the balance of power towards the third party, that third party must present less of a threat to the coercer's interests than the target state.³⁶ For example, during Operation Deliberate Force, NATO strikes against Bosnian Serb forces tilted the balance of military power towards the Muslim and Croat forces. NATO had to carefully manage the balance of power and be willing to accept the consequence of Muslim and Croat military superiority.

Regardless of which method of threatened force a coercer chooses, the coercer should compliment the stick of a threat with a carrot of accommodation whenever possible. The significant benefits of accommodation were discussed earlier, but the coercer must be able to promise something of value that does not hurt the coercer's interests.

AIRPOWER'S ROLE IN COERCION

Once strategic leaders conclude that coercion is an appropriate strategy to pursue and have decided what methods of coercion to employ, then air strategists must evaluate whether or not air and space power can effectively carry out the desired threats. In many situations, U.S. national leadership will want to use air and space power because it is relatively low risk, is almost immediately available, and can be extremely precise. Since the first Gulf War, friendly air losses have been amazingly low. So in comparison to the use of ground forces, the cost of execution in terms of lives and equipment lost is minimal. The Air Force possesses several

³⁶ Byman, Waxman, and Larson, *Airpower as a Coercive Instrument*, 135-136.

global strike capabilities available within hours, and the Navy can position a significant strike force anywhere in the world within days. In comparison, small numbers of Marine and Army forces can be in theater within days, but a significant ground force takes weeks or months to move into position. And the combination of stealth and precision allow air forces to strike a wide range of targets anywhere in the world. For all of these reasons, the U.S. will likely want to use airpower as a primary threat in any coercive situation. But for airpower to be effective it must be able to produce effects against the things strategic analysts have determined the adversary truly values.

Airpower is a particularly good tool for punishment, however remote that course of action seems today. Although this paper does not recommend the use of classical punishment coercion, airpower's sinister ability to inflict civilian casualties was demonstrated in World War II. Because of our advances in air superiority and air to ground weapons effectiveness, America's air forces present a much greater punishment threat today than in WWII.

While airpower's role in punishment seems off limits to America in today's environment, it presents a useable threat in the gray area of modern risk strategy. As risk strategy threatens a shift in attack from military targets to dual use and civilian infrastructure, airpower provides incredible capabilities. In many nations, the ruling and upper class have at least an indirect influence on the political decision making process, and are therefore a potential center of gravity. The more modern and affluent a target's society and support base is, the more vulnerable it is to airpower. In general, the more industrial a nation becomes the more dependent it is on electricity and oil for quality of life. Airpower can efficiently disrupt both services, either temporarily or permanently. Against an affluent state, a coercer could first threaten to disrupt these services, disrupt them temporarily, and then threaten to permanently destroy major plants and

infrastructure. Target leadership would face not only pressure from the most affluent and powerful sectors of the population, but also the tremendous economic costs of rebuilding expensive infrastructure. This particular use of coercive airpower against Serbia will be investigated later.

When a state pursues denial coercion against military forces, airpower can be a powerful threat against particular types of forces in certain terrain. Desert Storm demonstrated that mechanized forces left in open terrain are extremely vulnerable to modern airpower. But in Allied Force, Serbian mechanized forces avoided significant losses through camouflage and dispersion. In situations like the former, airpower can threaten by itself. In situations like the latter, airpower needs the threat of imminent ground combat to force enemy troops into fighting positions vulnerable to air attack. The same considerations apply when attacking target military capabilities in support of magnifying third party threats.

The combination of speed, stealth, and precision make airpower an excellent decapitation tool. Unfortunately, this strategy requires a balance between providing clear demands to the target and retaining enough surprise for a successful decapitation strike. If a target takes decapitation threats seriously enough to consider capitulation, they will probably attempt to counter the threat by going into hiding. Therefore, the coercer requires extremely good intelligence for any decapitation strike. Ultimately, the U.S. has two primary decapitation options: airpower and SOF. The choice between the two will depend on the tactical situation.

Even if airpower has the capability to strike the threatened valuable targets, the adversary must believe airpower's credibility. Not everyone is a believer in the capabilities of airpower. Shortly before Desert Storm, Saddam Hussein said, "They tell you that the Americans have advanced missiles and warplanes, but they ought to rely on their soldiers armed with rifles and

grenades.”³⁷ He thought that the U.S. was overly dependant on airpower and viewed this as a weakness. Many leaders believe ground forces are necessary to achieve military objectives. If a target’s leadership shares this point of view, then airpower will not coerce by itself.

While coercive air and space power may appear applicable to many situations, America must use it with caution. History shows that it is very difficult to coerce an opponent. Robert Pape presents research on the application of military coercion in the twentieth century. He concludes coercion succeeded before the total defeat of the adversary in only 15 of 40 cases.³⁸ Because credibility is so important to coercive success, reputation matters. Every time a nation fails at coercion or any military action, the reputation of its military capabilities decreases.³⁹ With a lower reputation, the probability of future coercive success diminishes. Therefore, America should utilize airpower in coercion only when a high probability of success exists.

As a whole, current theory shows that coercion is a desirable strategy because it is less costly than other forms of military action if it succeeds. But coercers must know the enemy decision system, have credibility in the opponent’s eyes, and be able to threaten something of value. In certain circumstances, airpower can be the most efficient form of force with which to threaten. However, for airpower to be an effective coercive tool the target must believe, or be made to believe, that airpower can inflict the threatened cost of resistance.

COERCIVE AIRPOWER IN VIETNAM

Vietnam is a classic case study for evaluating modern coercive airpower theory. Operation Rolling Thunder failed to compel North Vietnam to halt their support for the Viet Cong insurgency and start peace negotiations while Operations Linebacker I and II successfully resulted in a cease-fire agreement. Many USAF leaders thought the Linebacker campaigns

³⁷ Quoted in Atkinson, *Crusade*, 284.

³⁸ Pape, *Bombing to Win*, 52.

³⁹ Byman, Waxman, and Larson, *Airpower as a Coercive Instrument*, 138-139.

succeeded because President Nixon removed the excessive operational restrictions of Rolling Thunder.⁴⁰ But the critical difference between the campaigns was not the restrictions. When analyzed with the criteria for successful coercion, significant changes to the Vietnamese political-military situation between 1967 and 1972 put America in a much more favorable coercive position.

In both operations, America knew the North Vietnamese government decision making system well enough for coercion to work, but our ability to predict and affect their decision process improved over time. During Rolling Thunder, it is probable that Hanoi's decisions were heavily influenced by the Chinese and Soviets, complicating their decision calculus. As Mark Clodfelter points out, prior to the Linebacker campaigns, President Nixon used the rising tension between the Chinese and Soviets to isolate Hanoi.⁴¹ Armed with several years of experience in direct negotiations with North Vietnamese leadership, President Nixon's staff could more easily modify the air campaign's threats to influence an isolated Hanoi regime.⁴²

Both air campaigns had to overcome a lack of credibility from Hanoi's perspective. At the beginning of Rolling Thunder, the government in Saigon was so weak and unstable that even the U.S. doubted it could cope with the North's reactions to increased pressure.⁴³ This fact, combined with a still low number of U.S. ground troops, meant North Vietnam doubted America had the resolve to seriously hurt them. In 1972, North Vietnam could also doubt American commitment because US public opinion was firmly against the war and troop levels were already cut from over 500,000 to about 69,000.⁴⁴

⁴⁰ See General LeMay's remarks in Clodfelter, *The Limits of Airpower*, 206.

⁴¹ Ibid., 149-150.

⁴² Ibid., 173.

⁴³ Simons, "US Coercive Pressure," 135, 162.

⁴⁴ Clodfelter, *Limits of Airpower*, 108, 149.

American and North Vietnamese goals in the conflict were slightly more aligned during Linebacker I and II than in Rolling Thunder. President Johnson's goals in 1965 were to force the North to stop supporting the insurgency and to enter into peace negotiations. He also wanted an independent, stable, non-communist South Vietnam. Hanoi, however, wanted to unite all of Vietnam under communist rule. These goals were highly opposed. By 1972, President Nixon's objectives were to halt North Vietnam's advance in the South and sign a peace treaty so that he could end the U.S. presence in Vietnam. Hanoi's primary objectives included a reduction in American military activity in Vietnam.⁴⁵ Because both sides had the common objective of reducing American military presence, it was more likely that they could come to an agreeable solution.

The most significant difference between the coercive campaigns was Linebacker's ability to target something that was truly important to North Vietnam. During Operation Rolling Thunder, North Vietnam's rural economy and guerilla strategy were not highly vulnerable to air attack. President Johnson first pursued a risk strategy that gradually targeted North Vietnam's economic industrial base.⁴⁶ This phase of Rolling Thunder could not inflict a high cost of resistance because only 12% of North Vietnam's GNP came from industry.⁴⁷ After the failed risk campaign, President Johnson attempted to coerce through denial. But because guerilla tactics do not require a lot of logistical support and jungle terrain obscured the few lucrative fielded targets, airpower could not reduce the Viet Cong's combat capabilities. Finally, President Johnson allowed the USAF to pursue more aggressive bombing in North Vietnam, which resulted in a punishment-type campaign. But this strategy failed for the same reasons as risk. Because its

⁴⁵ Ibid., 170.

⁴⁶ Pape, *Bombing to Win*, 178.

⁴⁷ Ibid., 189.

rural society and guerrilla military strategy did not require a robust industrial capability, North Vietnam could not be coerced through attacks on its infrastructure.

During the late 1960s, America's ground based counter-insurgency strategy gradually weakening the Viet Cong and forced North Vietnam to pursue a conventional military strategy. Airpower could now effectively threaten North Vietnam's strategy. Even though Linebacker I and II hit many of the same targets as Rolling Thunder, they finally had a significant impact on the battlefield. ARVN forces turned back the North's offensive attack because the NVA lacked adequate supplies and was vulnerable to CAS and armed reconnaissance. If they did not concede, Hanoi calculated their conventional strategy would be defeated so they accepted peace in return for a decrease in American presence in Vietnam. More than anything else, American air campaigns in Vietnam demonstrate the requirement to target something the adversary truly values.

COERCIVE AIRPOWER IN THE BALKANS

Perhaps because of the stigma of the Vietnam War, America did not employ coercive airpower again during the Cold War. But with the increased frequency of conflicts in the post Cold War period, national leadership took a renewed interest in the low risk option of coercive air strategy. Air operations in the Balkans provide excellent lessons for the coercive application of modern air and space forces. Operation Deliberate Force was a successful limited coercive air campaign directed exclusively towards degrading the capabilities of the Bosnian Serb Army (BSA). Airpower was a decisive coercive force because it fit the political and military situation in the Balkans.

Because Bosnia was in a brutal civil war involving separate Muslim, Croat, and Serb ethnic armies, it was imperative that US and NATO leaders understood the power sources of

these forces. US and European diplomats negotiated extensively with all parties in the years leading up to Deliberate Force and therefore had good insight of the ambitions, influences and strategies of all sides. Based on this knowledge, NATO strategic leaders correctly decided to pursue an air campaign that frustrated or advanced each side's military strategies to produce an artificial stalemate. If NATO could convince the Croats and Muslims that they could not attain their territorial ambitions without the help of NATO airpower and the Serbs that they could not attain their ambitions in the face of NATO airpower, then NATO would hold the power to force all sides to the peace tables.

NATO airpower did not present an especially credible threat to the factions before the start of Deliberate Force. According to Steven Burg, several limited NATO strikes prior to Deliberate Force probably had a negative impact on airpower's credibility in Bosnia. The Bosnian Serbs also doubted NATO's resolve.⁴⁸ Therefore the threat of strikes alone had very little coercive power. NATO had to actually wage the campaign to prove its credibility.

Because the BSA was actively fighting a ground campaign against Muslim and Croat forces, it was susceptible to air attack. The objective of Deliberate Force was to alter "the BSA's advantage in conducting successful military operations against the BiH."⁴⁹ To do this, NATO targeted heavy weapons, munitions and supply depots, C3 nodes, IADS, and LOCs.⁵⁰ While damage to these targets started to degrade the BSA, the Serbs still had doubts over NATO's resolve when they halted the campaign after two days. When the Serbs balked at NATO's demands during the pause in operations, NATO resumed the air campaign. When the bombings continued, BSA and Serbian leaders were convinced of NATO's resolve.⁵¹ With the BSA under

⁴⁸ Burg, "Coercive Diplomacy in the Balkans," 60-63.

⁴⁹ Campbell, "Deliberate Force Air Campaign Plan," 107.

⁵⁰ Ibid., 108-109.

⁵¹ McLaughlin, "Assessing the Effectiveness of Deliberate Force," 192.

pressure from air strikes, Muslim and Croat forces seized over three thousand square kilometers of territory.⁵² The combination of NATO resolve and battlefield losses convinced the BSA to comply with NATO demands.

Finally, the terms of peace offered by Ambassador Holbrooke were not completely opposed with the different factions' goals. Each faction desired control over a majority of Bosnian territory. But the Dayton Accords provided a framework for all parties to save face. The land was split almost equally between the Croat-Muslim federation and the Bosnian Serbs. Each territory could establish special relations with neighboring countries and the head of state would alternate between the ethnic groups.⁵³

Airpower was an effective coercive instrument in the Bosnian crisis because it could seriously threaten the strategy of both sides of the conflict. Without the ground threat presented by Muslim and Croat forces, it would have been much less likely to succeed. The combination of an effective coercive air campaign and coercive diplomacy resulted in a successful resolution to a very complex and dangerous situation.

Three and a half years after Deliberate Force, NATO faced an equally grisly situation within Serbia itself. Because of Air Power's success in Bosnia, NATO leaders once again turned to airpower as its primary military instrument of coercive force. While Deliberate Force took 21 days to achieve coercion, Allied Force took 78 days. Senior US military leaders disagreed on whether to target Serbian fielded forces or leadership. The CFC, Gen Wesley Clark, favored a campaign that split resources between the two centers of gravity, while the CFACC, Lt Gen Michael Short, wanted to concentrate on leadership.⁵⁴ Allied Force reflected General Clark's vision to attack both fielded forces and strategic targets and thus had elements of a denial and

⁵² Ibid., 194.

⁵³ Rosegrant, *Getting to Dayton*, 53-55.

⁵⁴ Cordesman, *Lessons of the Air Campaign in Kosovo*, 166.

risk strategy. As time went on, the air campaign took on more of a risk focus, gradually targeting more dual-use infrastructure. Deciding what targets to threaten is a balance between which are most valuable to the opponent and which are most vulnerable to military force. In this case, both sets of targets were critical to Milosevic's strategy in Kosovo, but which would be more vulnerable to attack was difficult to predict prior to operations.

In the end, Allied Force could not induce enough damage on fielded forces to coerce Milosevic. Because the Serbian army did not face a significant ground threat, it had the luxury of using terrain, dispersion, and camouflage to defend itself from direct NATO air attacks. Without a significant conventional threat, Serb forces were not strangled by interdiction. NATO even realized that after one month of sustained bombing, Serbian forces had increased their rate of atrocities and ethnic cleansing.⁵⁵ By the end of the campaign, NATO bombing did not significantly reduce Serbia's ability to continue ethnic cleansing in Kosovo. As a coercive denial campaign, Allied Force was not effective.

The risk element of Allied Force influenced Milosevic's decision more than anything else. Strikes on dual-use targets such as power and manufacturing facilities damaged Serbia's already strained economy. Opposition and supporting groups alike became dissatisfied with their economic conditions and believed things would continue to get worse if NATO continued its air strikes.⁵⁶ To preserve his power, Milosevic had to bow to domestic political pressure and comply with NATO's demands.

Domestic political pressure became a critical factor because of Serbia's political and economic system. Milosevic was not an absolute strong man. He did not maintain power through fear and intimidation, but through a political process where popular support mattered.

⁵⁵ Ibid., 211.

⁵⁶ Hosmer, *Conflict Over Kosovo*, xiv-xv.

NATO attacks could sway the opinion of influential groups and the general public because Serbia was an industrial, urban, modern society. In such societies, quality of daily life is extremely susceptible to progressively less constrained bombing against industrial infrastructure. Since 50% of the GDP and 41% of the workforce were industrial based, targeting of dual use infrastructures had an immediate impact on the nation.⁵⁷ The more NATO political leaders allowed military leaders to intensify the risk elements of Allied Force, the more domestic political support Milosevic lost.

Taken together, the Balkan conflicts illustrate a few key points about coercive air power. First, denial strategies against conventional fielded forces are less effective without a complementary ground force. Second, risk strategies can be effective against modern industrial, urban societies if the political system is responsive to popular pressure or opposition groups. And third, risk strategies may take longer to succeed than denial strategies.

COERCIVE AIRPOWER IN THE NEAR FUTURE

The Balkan conflicts are representative of the first 15 years of the post Cold War period. The U.S. military was involved in several crises that did not threaten vital American interests, and coercive airpower was a useful tool with which to wield military power at lower risk. But now terrorism presents a long term threat to our vital interests. American armed forces will most likely be used for many years to come in the Global War on Terrorism (GWOT). National leadership may seek to use coercive air and space power in the near future. Unfortunately, coercive airpower has serious limitations for use in GWOT. It may have some utility against state sponsors of terrorism, but will be futile against Al Qaeda type terrorist organizations.

In the opening round of GWOT, the United States used coercion in an attempt to force Afghanistan to turn over Bin Laden and other Al Qaeda leaders. President Bush and the state

⁵⁷ Central Intelligence Agency, "World Factbook 1999: Serbian and Montenegro."

department made our demands clear through Pakistani delegations and public ultimatums.⁵⁸

After the first four days of military strikes, President Bush offered the Taliban another chance, but they still did not comply.⁵⁹ The Taliban refused to comply with demands because they did not believe that U.S. threats were credible.

The Taliban doubted America's credibility based on history, geography, and previous U.S. responses to terrorism. Throughout history, invading forces have had an incredibly difficult time conquering and controlling Afghanistan.⁶⁰ Most recently, the Soviets could not subdue the Afghan warlords despite a decade of fighting. Steeped in a history of successful resistance and surrounded by rugged terrain and nations not overtly friendly towards the U.S., the Taliban did not fathom how America could project enough power to inflict significant pain or defeat. The Taliban also doubted our resolve because American responses to previous Al Qaeda attacks were limited to ineffective cruise missile strikes against training camps in Afghanistan.⁶¹ Therefore, the Taliban executed their most logical option: resistance. Fortunately for the U.S., national leadership quickly abandoned coercion when the Taliban refused to comply with President Bush's ultimatum. President Bush ordered Central Command to deliver a decisive victory.

Operation Enduring Freedom clearly demonstrates America's resolve and power projection capabilities in GWOT, but coercion will not be a useful strategy against terrorist organizations. The US will probably not be able to coerce Al Qaeda-type groups due to a lack of credibility. Terrorists no longer doubt our resolve, but the US still has not demonstrated the ability to defeat them. Against terrorism, air forces face problems similar to those against insurgencies. It is hard to target many terrorist organizations with airpower because they are

⁵⁸ Crenshaw, "The Response to Terrorism," 336.

⁵⁹ Ibid., 340.

⁶⁰ Bearden, "Afghanistan, Graveyard of Empires," 195.

⁶¹ Crenshaw, "The Response to Terrorism," 324-325.

dispersed, blend in with the local populations, and do not use heavy military equipment.

America and her allies have failed to win a decisive victory against Al Qaeda and its associated organizations since 2001 despite our best efforts. If nothing else, terrorist leaders have learned that they can survive by emulating Al Qaeda's operations.

Coercion may be of some value in GWOT against state sponsors of terrorism. While the US could not coerce the Taliban to give up support and safe haven for Al Qaeda, other states may be coercible. First, current and future state sponsors of terrorism will probably have little doubt over America's resolve to use force because of our track record since 2001. However, if coercion requires a threat of regime change through military invasion, credibility will likely be low because US popular support for such an operation is doubtful in light of the significant costs of post OEF and OIF operations. The key question for air strategists to answer in the near term will be, "Can air and space power target something of significant value to the adversary state without the support of a significant US ground offensive?" Two potential state sponsors of terrorism worthy of analysis are Syria and Iran.

A brief analysis of Syria shows very limited potential for successful airpower coercion. The assumption for this analysis is that the US desires only a Syrian policy change with regard to terrorism sponsorship. First, Syria is controlled by an authoritarian president backed by a strong military. There appears to be no rift in the government or significant opposition group for coercers to exploit. Possible systems for air and space power to threaten are leadership, fielded forces, and terrorist groups within Syria. Syrian and US goals would not be completely opposed assuming President al-Asad could remain in power if he complied with demands. Finally, there is no internal group that presents a credible military threat to Syria. Israel is an external military threat, but the U.S. would not try to overtly shift the balance of power towards Israel because of

the dire political fallout from other Arab states over such a policy. With these things in mind, decapitation and magnification of third party threats are not viable methods of coercion. This leaves risk and denial as possible options.

Syria has elements of an industrialized and urban society susceptible to a risk-based air campaign, but President Asad's small, authoritarian regime will probably not be influenced by the amount of economic suffering the US would be willing to inflict. Syria's per capita GNP, while not large at \$3,500, is actually higher than Serbia's \$2,300 in 1999. Its economy is 31% industrial and 44% services.⁶² Therefore, air power could probably inflict economic hardship on the urban population centers of Syria. But President Asad would not likely experience the same kind of domestic political pressure that Milosevic did because of the authoritarian nature of his political system. Therefore, air power could probably not coerce Syria with a risk based campaign.

The US could target Syrian armed forces as part of a risk strategy, but it would likely fail to coerce. Because of the open terrain and good weather in Syria, fielded military equipment may be vulnerable to air attack even without a significant ground threat. But destroying military forces and equipment does not present a significant cost of resistance to Asad because he faces no immediate credible military threat.

The only realistic airpower denial strategy for the US to pursue would be threatening any terrorist groups actually inside Syria. If Syria was harboring a large terrorist militia group similar to Hezbollah in south Lebanon, airpower could be an effective threat. The US air forces have demonstrated the ability to conduct strikes through IADS similar to Syria's with very low combat losses. If the militia groups were concentrated or separate from civilian population

⁶² Central Intelligence Agency, "World Factbook 2006: Syria," and Cordesman, *Lessons of the Air Campaign in Kosovo*, 169.

centers, then US air power would present a credible threat to the existence of large terrorist groups in Syria. It is unlikely that airpower could have similar results against small cell groups like Al Qaeda. Our threats would not be credible because we simply have not demonstrated the ability to hit key Al Qaeda leadership at will.

In summary, US airpower has limited ability to coerce Syria in the GWOT. If we wanted Syria to stop supporting large terrorist militia groups like Hezbollah, then airpower could be a coercive tool. But any other Syrian terrorist support would be better thwarted through other means.

Much like the Syrian situation, US airpower provides only limited coercive potential against Iran as a state sponsor of terrorism. The critical factors for coercion in Iran are very similar to those in Syria. The one glaring difference between the two nations is Iran has a political rift that could be exploited. The current rhetoric from President Ahmadi-Nehjad is radical and extremely anti-American. But from 1997-2005, President Khatami attempted to pass significant political reforms with support from a large percentage of the elected legislature. These reforms, and their supporting political parties, were thwarted by the non-elected, hard-lined Guardian and Expediency Councils.⁶³ A rift exists between the moderate, reform parties and the current government. In-depth intelligence collection and analysis would have to be done, but it is possible to exploit this rift with coercive airpower. A risk based air campaign against economic and leadership targets could weaken the current government and strengthen moderate factions. Unfortunately, the Iranian political system is extremely complicated because the ultimate power in Iran is held by hard line, non-elected religious leaders—the Ayatollah and the previously mentioned councils. Exploiting the political rift is possible, but would be very difficult.

⁶³ Political Risk Services, “Iran Country Forecast,” 14-15.

While the utility of coercive airpower in the GWOT is limited, the US could use airpower to coerce Iran over the issue of nuclear weapons. In addition to using a risk strategy to help bolster the influence of moderate groups, America could coerce through denial. None of the current nuclear powers appear to support Iran's nuclear weapons ambitions. If none of the nuclear powers will provide weapons-grade nuclear material, then Iran will have to build its own enrichment facilities. Airpower could destroy these key nuclear facilities if we have adequate intelligence. Combining a credible threat of destroying key facilities with the appeasement of providing enriched fuel for power production should be an effective coercive strategy.

CONCLUSION

Military coercion holds the promise of achieving desirable political end states without the price of unconditional victory. Unfortunately, coercion is a very difficult strategy to employ and many conflicts are ill suited for it. Every unsuccessful attempt at coercion reduces our credibility for future coercion applications. These observations illustrate why military strategists need to study and develop coercive theory. Airpower will play a central role in most applications of coercive military force. Therefore the USAF must stay at the cutting edge of coercive theory.

From current coercion theory this paper proposed four critical areas for analysis of the utility of military coercion: the adversary's political system, our credibility, vulnerable high value targets, and the objectives of both sides. From this analysis, strategic leaders can determine the feasibility of a coercive strategy. If it is a feasible strategy, then the military must determine what form of force can most threaten the things the adversary values. More often than not, that force will include airpower.

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